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ABSTRACT

This paper examines Miami-Dade Community College's (M-DCC) (Florida) economic benefits to the community. The Beacon Council lists M-DCC as the eighth largest public sector employer in Miami-Dade County. Economic benefits can occur in many ways, one of which is when vendors who sell to M-DCC provide jobs and income for residents who are not directly employed by the college, but profit from college funding. Findings indicate that the college's total impact on the Miami-Dade economy for 1999-2000 was $772 million, of which $90 million originated in Miami-Dade County. This is a return rate of 862% and indicates that M-DCC has a substantial economic impact on the community, including an impact of $233 million on household earnings. In addition, approximately 11,460 jobs were created in Miami-Dade through the primary and secondary effects of college funding, with 8,436 jobs created solely due to the college's presence. Table 5 shows M-DCC's final economic impact on Miami-Dade County: The $89 million in funds originating inside Miami-Dade County contributed $187 million to the economy, with $69 million of that impacting household incomes, and created 3,024 jobs. Funds originating outside Miami-Dade County contributed $457 million, with $147 million impacting household incomes, and created 7,363 jobs. (NB)

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ECONOMIC IMPACT OF MIAMI-DADE COMMUNITY COLLEGE

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Miami-Dade Community College

INSTITUTIONAL RESEARCH

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ECONOMIC IMPACT OF MIAMI-DADE COMMUNITY COLLEGE

Introduction

Miami-Dade Community College (M-DCC) is well recognized as a leader in providing educational opportunities for Miami-Dade County residents. However, M-DCC's economic benefits to the County are less well known. For example, the Beacon Council lists M-DCC as the 8th largest public sector employer in Miami-Dade County. Benefits also occur when vendors who sell to M-DCC provide jobs and income for residents who are not directly employed by the College, but benefit from College funding. This report provides a measure of M-DCC's overall economic impact on our community.

Summary and Conclusions

Findings indicate that the College's total impact on the Miami-Dade County economy for 1999-2000 was $772.4 million dollars, of which $89.7 million originated in Miami-Dade County. This is a return rate of 862%, and indicates that M-DCC has a substantial economic impact on our community. This includes an impact of $233.1 million on household earnings. In addition, approximately 11,460 jobs were created in Miami-Dade County through the primary and secondary effects of College funding.

The **total impact** figures given above include the impact of the $89.7 million that originated in Miami-Dade County. Those funds originated in the County, and would have some impact if directed somewhere other than the College. Therefore another measure of financial impact is the College's **additional impact** on the community's economy. The estimated financial impact of funds arising from outside the County was $584.4 million, and 8,436 jobs were created due solely to the College's presence.

Methods

The above figures were derived using:

1. The M-DCC Annual Financial Report Fiscal Year 99-00.
2. The U.S. Bureau of Economic Analysis Regional Input-Output Modeling System multipliers for determining economic impact.
3. The 1999-2000 Florida Statistical Abstract.
4. Analysis of M-DCC enrollment files.

Details are in the attached tables. A summary is provided here.

M-DCC's Annual Financial Report Fiscal Year 99-00 shows the College's annual revenues were $308.2 million. The $89.7 M originating in Miami-Dade County was estimated based on the source of the revenue (Table 1).

State appropriations are the largest source, $154.2M. The sources of these are taxes and the lottery. The 1999-2000 Florida Statistical Abstract shows 11.7% of Florida taxes and lottery originate in Dade County (Table 2). The 11.7% was used to determine the $18.0 million of State appropriations and $0.7 million in State grants that originate in Miami-Dade County.

The second largest source of revenues in Table 1 was student fees, $70.6 million. Based on the number and credits of M-DCC students who live outside of Miami-Dade County, and the number who pay out of State fees, $11.6 million originated outside of the County (Table 3). The remaining $59.0 million was considered as originating inside Miami-Dade County. A similar analysis determined that $3.2 million from auxiliary sales/services and sales of educational activities originated in Miami-Dade County.

The $64.9 million in federal funds received by M-DCC was considered as originating external to Miami-Dade County. The $8.8 million from local grants, endowments, gifts, and contracts were considered as originating inside the County.

The Bureau of Economic Analysis Regional Input-Output Multipliers, Version II (RIMS-II), are a set of multipliers used to determine industries' economic impact. The output multiplier is used to determine the total impact; the earnings multiplier is used to determine the impact on household incomes; and the employment multiplier is used to determine the number of jobs created. The multipliers take into account expenditures and the secondary effects of the expenditures. For example, funds are spent on suppliers, who in turn must purchase materials and hire employees. These suppliers and employees then make more purchases, etc. The multipliers also take into account the value added. For example, a furniture manufacturer purchases raw materials and increases value by making these into a useful and more valuable product. The multipliers are industry specific and can be adjusted for a specific geographic region. Secondary effects are also referred to as ripple effects and, like ripples in water, gradually diminish. The original funds disperse farther from the source and leakage of funds out of the region occurs through purchases made outside of the region and employees living outside of the specified region.

M-DCC's Office of Institutional Research obtained a set of RIMS-II multipliers specific to Miami-Dade County from the United States Chamber of Commerce, Bureau of Economic Analysis (BEA). On the recommendation of BEA personnel, the post-secondary education multipliers were used to determine the economic impact of the College's funding. Post-secondary education is viewed as an "industry" whose services are "purchased" by: state and federal government, via appropriations and contracts; students via fees and tuition; and local institutions through gifts and grants. The economic benefits of a post-secondary education in Miami-Dade County contribute to the value added. Leakage is based on an estimate of goods purchased, and employees residing, outside Miami-Dade County. The post-secondary education multipliers were applied to the funding source dollar amounts to determine the overall effects. This methodology is more straightforward than determining the effects of College purchases that cover a wide range of industries and multipliers. Industry specific multipliers were applied to non-resident student expenditures as appropriate.

In addition to the economic contribution made directly through College funding, non-Florida resident students contribute to the local economy through non-educational living expenses. These students are presumed to be here solely to attend M-DCC, and would have contributed nothing to the economy were it not for the College[1]. This contribution was calculated using non-Florida resident enrollment and the M-DCC Technical Manual of Procedures, Student Financial Aid Budgets (Table 4). Student expenses given in the latter were from 1990 and were adjusted for cost-of-living increases. The RIMS-II multiplier associated with the various categories of expenses was applied. It was found these students contribute an additional $126.6 million to the Miami-Dade County economy.

Table 5 shows M-DCC's final economic impact on Miami-Dade County, broken down by source of that impact. The $89 million in funds originating inside Miami-Dade County contributed $187 million to the economy, with $69 million of that impacting household incomes, and created approximately 3,024 jobs. Funds originating outside Miami-Dade County contributed $457 million, with $147 million impacting household incomes, and created 7,363 jobs. Non-resident students contributed another $126.6 million, $25.7 million as household income, and 1,073 jobs. M-DCC's total impact was $772.4 million dollars, $233.1.5 million in household income and 11,460\ jobs.

The final figure in this report visually summarizes the flow and impact described above.

[1]Research Report No. 97-07R used living expenses of all M-DCC students. Expenses of Dade County resident students would have occurred whether they attended college or not. Living expenses of Broward/Monroe County students do not impact Miami-Dade County. Both groups were excluded from the current impact calculation.

Table 1
Miami-Dade Community College
Estimated Origin of Revenues

Revenue Source*	Revenues*	Percent Estimated Originating in Miami-Dade County	Origin: Miami-Dade County	Origin: External
State Appropriations	$154,182,036	11.7% **	$18,039,298	$136,142,738
Student Fees	$70,572,492	83.6% ***	$58,999,697	$11,572,795
Federal Grants and Contracts	$64,953,862	0.0%	$0	$64,953,862
State Grants and Contracts	$6,254,384	11.7% **	$731,763	$5,522,621
Gifts, Private Grants, and Contracts	$4,364,143	100.0%	$4,364,143	$0
Sales and Services of Auxiliary Enterprises	$3,493,318	90.1% ***	$3,147,480	$345,838
Local Grants and Contracts	$2,398,273	100.0%	$2,398,273	$0
Other Sources (Endowments, Gifts, etc.)	$1,960,034	100.0%	$1,960,034	$0
Sales and Services of Educational Activities	$36,349	90.1% ***	$32,750	$3,599
Total Revenues	$308,214,891		$89,673,438	$218,541,453
			29.1%	70.9%

*Miami-Dade Community College, Annual Financial Report, Fiscal Year 99-00.
**See Table 2
***See Table 3

Table 2
Miami-Dade Community College
1999-2000 Estimated Sources of State Funds*

State of Florida Total Taxes Collected	$14,377,425,679	
State of Florida Lottery Sales	$2,324,386	
Total	$14,379,750,065	100.0%
Miami-Dade County State Taxes Collected	$1,686,254,316	
Miami-Dade County Lottery Sales	$375,979	
Total	**$1,686,630,295**	**11.7%**

*Florida Statistical Abstract 2000, Bureau of Economic and Business Research, University of Florida

Table 3

Miami-Dade Community College

Credits/Credit Hour Equivalents/Fees Originating Outside Miami-Dade County

Total Credits/Credit Hour Equivalents*	1,085,551
Total Matriculation/Tuition Fees**	$70,572,492
Credits/CHE Generated by Students from Outside of Florida*	53,919
Total Matriculation/Tuition Fees from Students from Outside of Florida***	$9,369,487
Percent of Credits/CHE Generated by Students from Outside of Florida	5.0%
Percent of Fees Paid by Students from Outside of Florida	13.3%
Total Matriculation/Tuition Fees from Florida Students	$61,203,005
Credits/CHE Generated by Broward/Monroe County Students****	53,919
Percent of In-State Credits by Broward/Monroe County Students	3.6%
In-State Fees from Broward/Monroe County Students	$2,203,308
Total Credits/CHE Generated by Non-Miami-Dade County Students	107,838
Percent of Credits/CHE Generated by Miami-Dade County Students	***9.9%***
Total Matriculation/Tuition Fees from Non-Miami-Dade County Students	$11,572,795
Percent of Matriculation/Tuition Fees from Non-Miami-Dade County Students	**16.4%**
Total Credits/CHE Generated by Miami-Dade County Students	977,713
Percent of Credits/CHE Generated by Non-Miami-Dade County Students	***90.1%***
Total Matriculation/Tuition Fees from Miami-Dade County Students	$58,999,697
Percent of Matriculation/Tuition Fees from Miami-Dade County Students	**83.6%**

* Miami-Dade Community College Community College Program Fund Files 1998-3&4, 1999-1&2

** Miami-Dade Community College Community College 1999-2000 Annual Financial Report

*** Miami-Dade Community College Catalog 1999-2001

**** Miami-Dade Community College IRS40 Research Files 1998-3&4, 1999-1&2

Table 4
Contribution to the Miami-Dade County Economy by Non-Florida Resident Students
At Miami-Dade Community College 1999 - 2000

	Student Budget*	Annual	CPI Adjustment**	Industry Title	RIMS II Multipliers: Output Multiplier	Additional Output	Earnings Multiplier	Additional Earnings	Employment Multiplier	Additional Jobs
Rent	$504.40 /month	$6,053	$7,975	Real Estate Agents, Operators, Managers, Lessors	1.4907	$11,888	0.2040	$1,626.81	9.8	0.07815
Utilities	$201.60 /month	$2,419	$3,187	Electric, Gas, Sanitary Services Aggregation	1.4337	$4,570	0.2340	$745.83	6.8	0.02167
Food	$168.00 /month	$2,016	$2,656	Food and Kindred and Tobacco Products Aggregation	1.5081	$4,006	0.2524	$670.39	8.9	0.02364
Transportation*	$65.30 /week	$3,396	$4,474	Transportation Aggregation	1.8637	$8,338	0.4722	$2,112.48	17.4	0.07784
Lunches*	$23.75 /week	$1,235	$1,627	Eating and Drinking Places Aggregation	1.8527	$3,015	0.4905	$798.10	31.0	0.05044
Clothing	$843.00 /year	$843	$1,111	Apparel and Other Textile Products Aggregation	2.0712	$2,300	0.4956	$550.44	23.4	0.02599
Health Insurance Premiums	$910.00 /year	$910	$1,199	Insurance Aggregation	2.4048	$2,883	0.7144	$856.51	24.6	0.02949
Doctors, Dentists, Prescriptions	$218.00 /year	$218	$287	Health Services Aggregation	1.9801	$569	0.7185	$206.36	24.4	0.00701
Entertainment and Miscellaneous*	$310.00 /year	$310	$408	Hotels and Other Lodging Places, Amusements and Recreation Services, and Motion Pictures Aggregation	1.9115	$781	0.5474	$223.57	26.0	0.01062
Estimated Expenditures Per Student		$17,400	$22,924			$38,348		$7,790.50		0.32486
						X		X		X
Total Non-Florida Resident Students			3,302			3,302		3,302		3,302
Total			**$75,695,048**			**$126,625,465**		**$25,724,236**		**1,073**

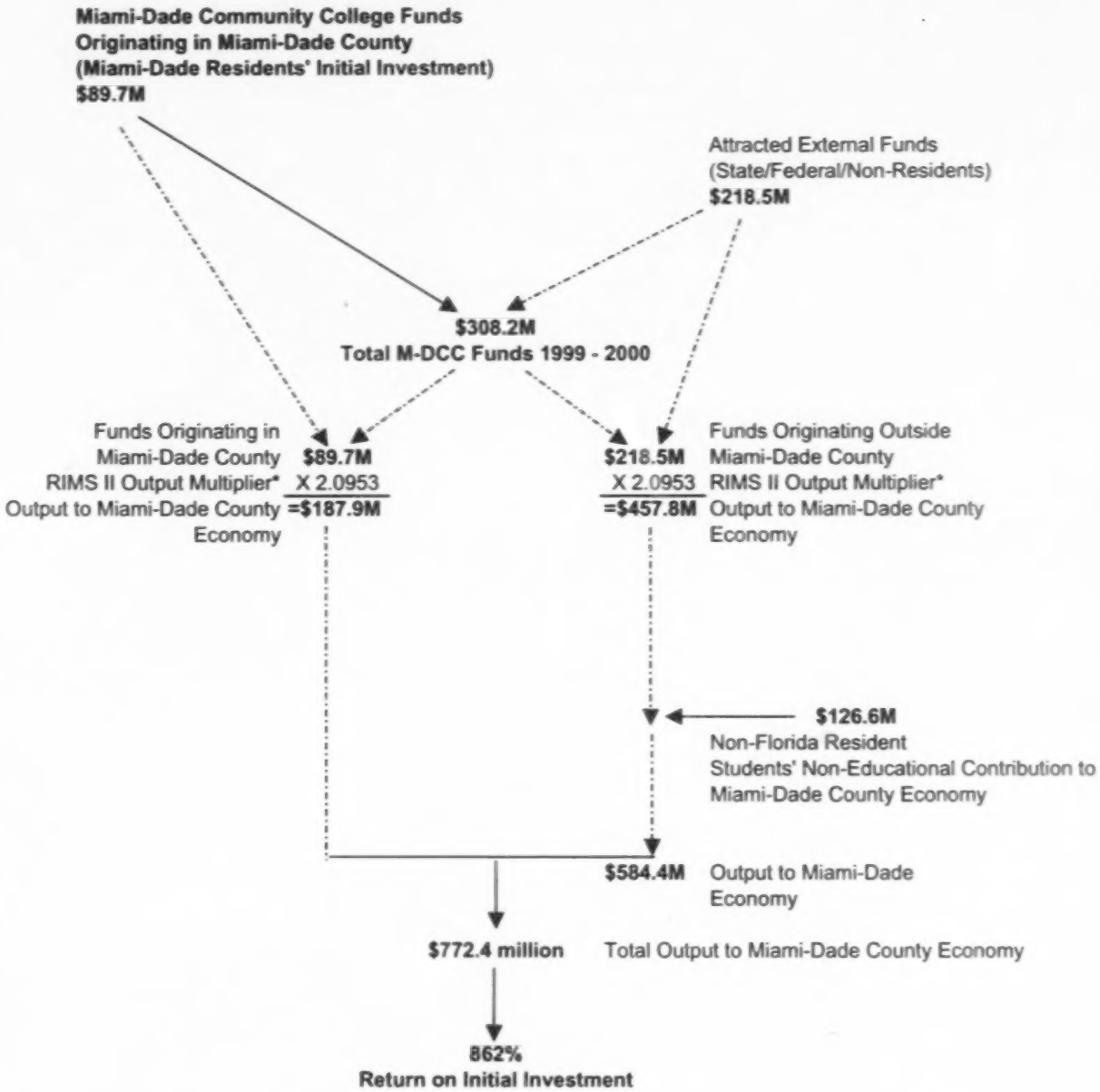
*Miami-Dade Community College Technical Manual of Procedures, Student Financial Aid Budgets, 1990 Revision.
**What's a Dollar Worth? CPI (Consumer Price Index) Calculation Machine, Federal Reserve Bank of Minneapolis, (http://woodrow.mpls.frb.fed.us/economy/calc/cpihome.html).

Table 5
Output to Miami-Dade County Economy
From Miami-Dade Community College

1999-2000 Miami-Dade Community College Total Funds	**$308,214,891**
Funds Originating in Miami-Dade County	$89,719,324
RIMS II Output Multiplier for Post-Secondary Education in Miami-Dade County	2.0953
Total Output to Miami-Dade County Economy	$187,988,900
RIMS II Earnings Multiplier for Post-Secondary Education in Miami-Dade County	0.6730
Output to Miami-Dade County Household Earnings	$60,381,105
RIMS II Employment Multiplier for Post-Secondary Education in Miami-Dade County	33.7/M
Jobs Created by Miami-Dade County Funds	3,024
Funds Originating Externally	$218,495,567
RIMS II Output Multiplier for Post-Secondary Education in Miami-Dade County	2.0953
Total Output to Miami-Dade County Economy	$457,813,762
RIMS II Earnings Multiplier for Post-Secondary Education in Miami-Dade County	0.6730
Output to Miami-Dade County Household Earnings	$147,047,517
RIMS II Employment Multiplier for Post-Secondary Education in Miami-Dade County	33.7/M
Jobs created by External Funds	7,363
Non-Florida Resident Students' Expenditures (Non-Educational)	
Output to Miami-Dade County Economy	$126,625,465
Output to Miami-Dade County Household Earnings	$25,724,236
Jobs Created by Non-Florida Resident Students' Expenditures	1,073
Totals	
Total Output to Miami-Dade County Economy	$772,428,126
Total Output to Miami-Dade County Household Earnings	$233,152,858
Total Jobs Created in Miami-Dade County	11,460

Figure

IMPACT OF MIAMI-DADE COMMUNITY COLLEGE ON THE MIAMI-DADE COUNTY ECONOMY



*U.S. Bureau of Economic Analysis multiplier to determine the final impact of an industry's change in final demand (output) on a regional economy. The multiplier takes into account factors such as: re-spending, value added, and leakage of funds out of the region. The 2.0953 is specific to post-secondary education in Miami-Dade County.